



October 23, 2019

**VIA ECFS**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street S.W.  
Washington, D.C. 20554

**Re: Notice of Ex Parte: IB Docket No. 18-313**

Dear Ms. Dortch:

On October 21, 2019, representatives of Astroscale met with Mr. Umair Javed, Legal and Wireless Advisor to Commissioner Rosenworcel to discuss orbital debris mitigation and remediation. This discussion is subject to *Permit But Disclose* rules<sup>1</sup> under International Bureau Docket No. 18-313, “Mitigation of Orbital Debris in the New Space Age.”<sup>2</sup>

During the meeting, Astroscale emphasized that there is great promise that comes with the increased number of satellites in operation and those planned to improve services around the globe for citizens, enterprises and government. But, congestion and orbital debris put at risk the end benefits and investments being made within the space industry and the long-term sustainability of Earth orbit. In order to mitigate this risk, satellite operators will need to manage the environment through end-of-life and active debris removal services.

Astroscale provided an overview of the company including technological development of its demonstration mission, End-of-Life Services by Astroscale (ELSA-d), key customer sets, and global policy or best practices engagement. Astroscale also emphasized specific points within its joint comment with other space companies<sup>3</sup> in the FCC NPRM for Orbital Debris. Those key points were:

- The need for adherence to a 95% or better post-mission disposal (PMD) reliability rate for satellites;
- The 25-year guideline for deorbiting after end of mission is no longer sufficient in this current environment and that operators should aim to deorbit their satellites as soon as practical after the end of mission;

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<sup>1</sup> 47 CFR §§ 1.1206, 1.1200(a)

<sup>2</sup> *Mitigation of Orbital Debris in the New Space Age*, IB Docket 18-313, Nov 19, 2018.

<sup>3</sup> Comments of *Global NewSpace Operators*, IB Docket 18-313, Apr 5, 2019.



- That usage of a backup deorbit mechanism can be used to achieve the prior two points;
- The importance of trackability and identification of satellites; and
- Creating a culture of communication and transparency between satellite operators.

Finally, Astroscale conveyed that satellite operators should be prepared in the event of failures and take proactive steps to ensure the long-term sustainability of space. That is, Astroscale continues to advocate for a “leave no trace” concept for those operating in space.

Sincerely,

/s/ Charity Weeden

C. Weeden  
Vice President, Global Space Policy  
Astroscale U.S.

Commission representatives present:

Umair Javed, Legal Advisor, Wireless and International, Office of Commissioner Rosenworcel

Astroscale representatives present:

Nobu Okada, Astroscale Japan  
Chris Blackerby, Astroscale Japan  
Charity Weeden, Astroscale U.S.  
Luc Riesbeck, Astroscale U.S.

cc:

Umair Javed, Legal Advisor, Wireless and International, Office of Commissioner Rosenworcel  
Jose Albuquerque, IB Division Chief  
Karl Kensinger, IB Deputy Division Chief  
Steven Duall, IB Policy Branch Chief